

PEJ 200/270

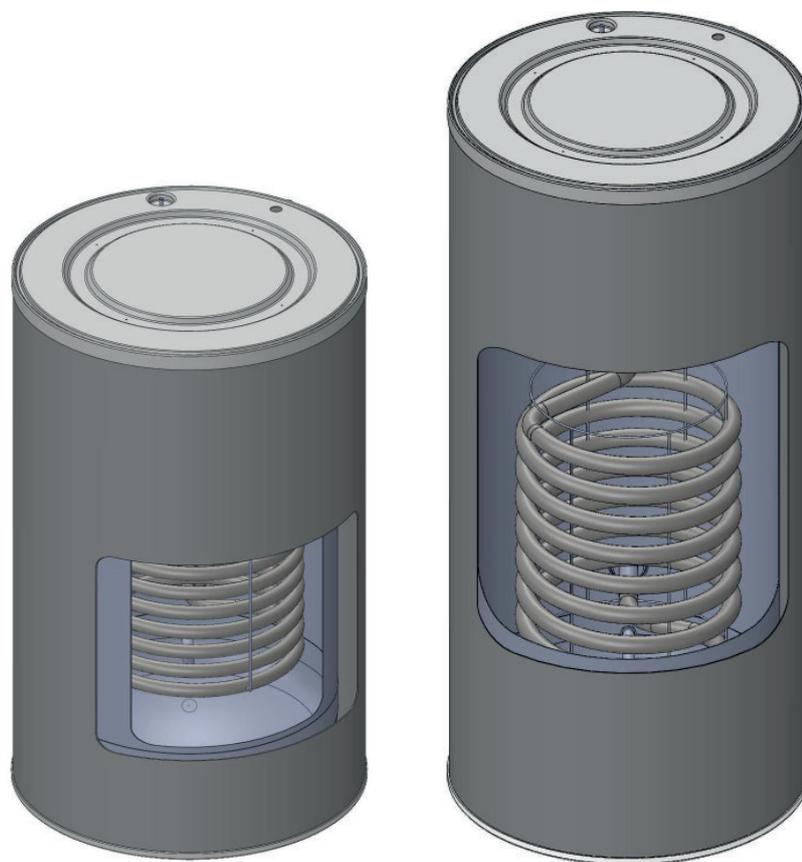
Domestic hot water heater



Installation, user and maintenance manual

PEJ 200
Ref. 341111

PEJ 270
Ref. 341106



PEJ 200

PEJ 270

The information contained in this document is non-contractual. We reserves the right to modify the technical specifications or characteristics of any of their appliances without prior notice.

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1 - GENERAL

1.1 - Notes

This manual forms part of the appliance with which it refers to and must be given to the user for future reference. This document must be preserved!

The installation, set-up, maintenance, and repairs on this installation must be carried out by an approved installer, in compliance with the standards in effect in the country of use.

The manufacturer is not responsible for any damage resulting from improper installation, or in the case of usage of the appliances or accessories which are not in accordance with the instructions specified by the manufacturer.

Note: The manufacturer reserves the right to modify the technical specifications and the fittings of their products without prior notice
The availability of certain models as well as their accessories may vary based on the different markets. Installation must be in compliance with the instructions contained in this manual, as well as to the codes and standards regulating installations ensuring the production of hot water.

1.2 - Packaging

The appliances are delivered pre-assembled, tested, and packaged in a cardboard box.

Contents of packaging:

- One hot water heater
- One technical manual
- One warranty form

2 - SAFETY

2.1 - Symbols used

Described below are the symbols and text boxes used in this manual:

Essential instructions for proper operation of the installation.



DANGER

**Essential instructions for personal and environmental safety.
Risk of severe bodily injury if not followed.**

The manufacturer cannot be held responsible for damages resulting from not following the instructions provided in this manual.

2.2 - Recommendations



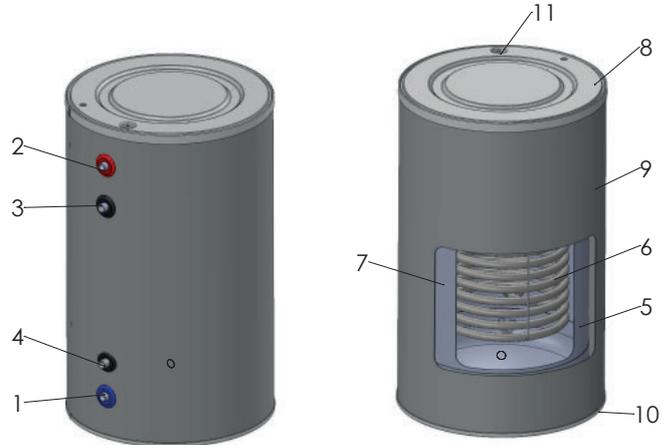
- Read this manual carefully before installing and turning on this appliance.
- It is strictly **PROHIBITED** to carry out any modifications to the interior of this appliance without first getting written consent from the manufacturer.
- The appliance must be installed by a qualified technician in compliance with the standards and local codes in effect in the country of use.
- Installation of this appliance must be in compliance with the instructions contained in this manual as well as the codes and standards regulating installations relating to the production of hot water.
- Not following the instructions provided related to the inspection procedures could lead to bodily harm or risks or environmental pollution.
- To guarantee proper operation of your appliance, it is important to have it inspected and maintained annually by an approved installer or maintenance company.
- In case of anomaly, contact your installer.
- Defective parts must be replaced only by pieces originating from the manufacturer.

3 - DESCRIPTION

3.1 - Applicable areas of use

Our domestic hot water heaters are designed and manufactured exclusively for the heating and storage of domestic hot water.

The domestic hot water heaters must only be heated using heating water in a closed circuit.



- | | |
|---|---|
| 1. Domestic cold water inlet | 7. Stainless steel domestic hot water reservoir |
| 2. Domestic hot water outlet | 8. Top cover |
| 3. Primary fluid inlet | 9. Outer jacket |
| 4. Primary fluid outlet | 10. Pedestal |
| 5. 50mm of polyurethane insulation | 11. Thermostat well |
| 6. Stainless steel primary heat exchanger | |

3.2 - Technical specifications

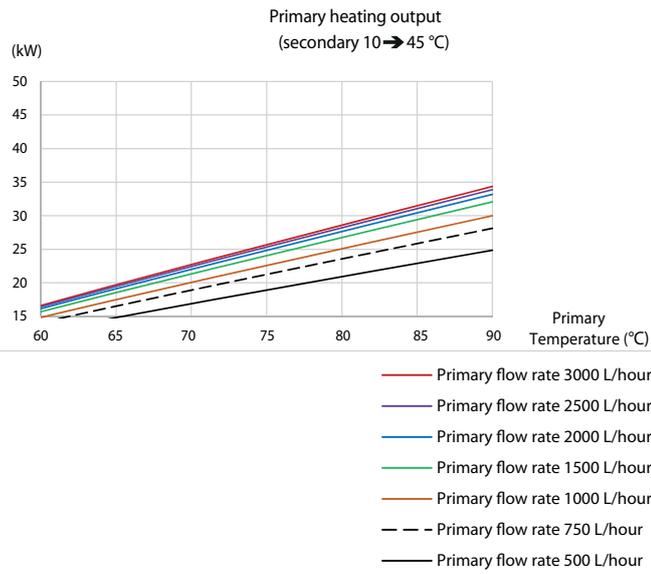
Specifications	Unit	PEJ 200	PEJ 270
Total capacity	liter	200	270
Primary capacity	liter	5	7
Primary heating output* secondary 10 → 45°C	kW	28	38
Load loss at stop*	W	71	85
Heating time* 10 to 65°C	minute	40	40
V40* Hot water capacity	liter	280	385
Load loss of primary circuit*	mCE	1.73	2.5
Primary flow rate*	L/h	2000	2000
Weight when empty	kg	40	45
Weight when filled with water	kg	259	335

* (EN 12897:2016)

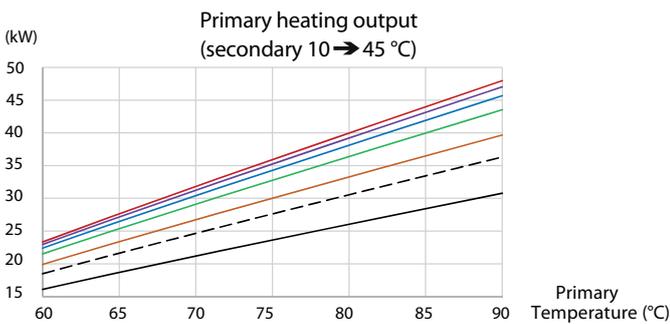
Heating time: 80°C - T° of supplied water: 10°C

3.2.1 - Primary heating output

3.2.1.1 - PEJ 200

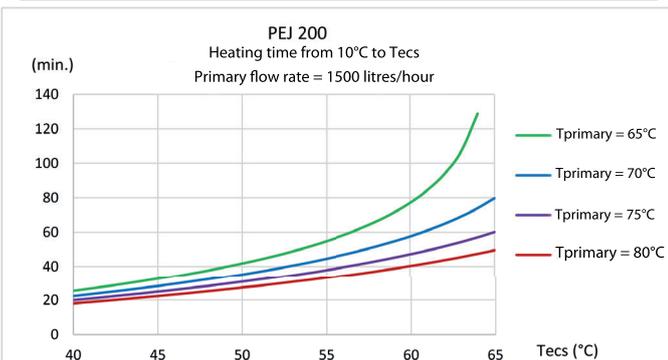


3.2.1.2 - PEJ 270

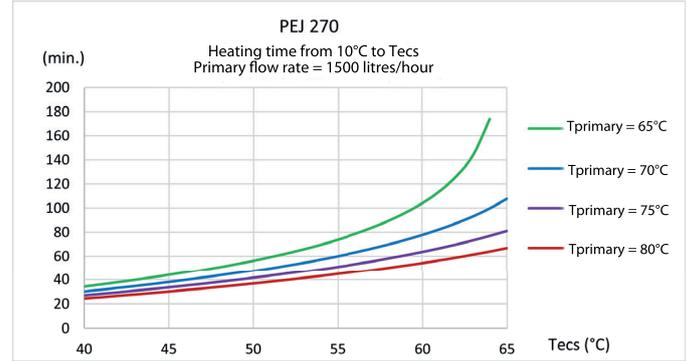


3.2.2 - Heating time

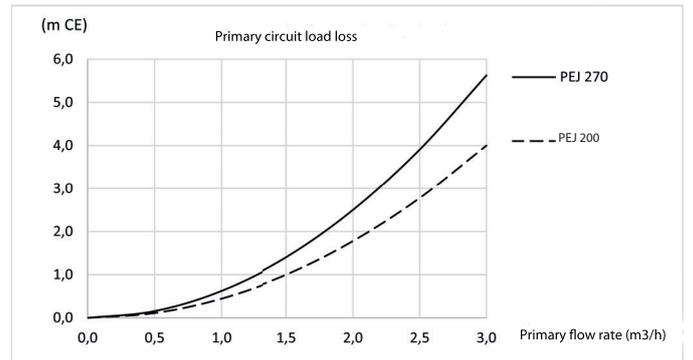
3.2.2.1 - PEJ 200



3.2.2.2 - PEJ 270



3.2.3 - Primary circuit load loss



3.3 - Conditions of use

3.3.1 - Maximum service pressure

Tank filled with water:

- Primary circuit4 bars
- Water circuit6 bars

3.3.2 - Temperature of use

- Maximum temperature.....90°C

3.3.3 - Quality of water

It is MANDATORY to read the additional document concerning the quality of water used for filling the installation. This document is included with this manual as well as in the packet with the warranty information.

This document also contains information which is PERTINENT to the WARRANTY of the material.

- Chlorides < 70 mg/L
- $6 \leq \text{pH} \leq 8$
- If the water hardness is > 20°fH, it is advised to install a water softener.

4 - INSTALLATION

4.1 - Placement

The hot water heater must be installed in a dry area which is sheltered from adverse weather conditions.

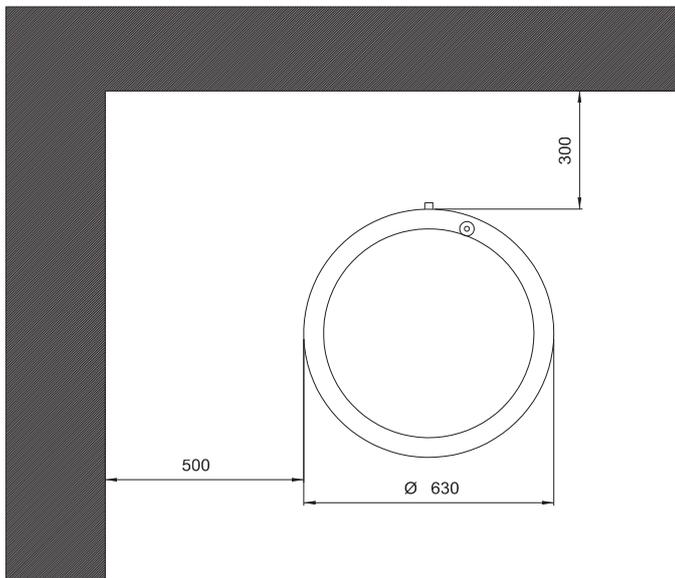
Choose the most appropriate placement for the water heater based on the position of the boiler and the proximity to the distribution of domestic hot water, so as to minimise the loss of temperature in the piping network and to minimise load loss.

Note: Enough free space must be left around the appliance to allow for the changing of the DHW and DCW deflectors, if needed, when carrying out regular maintenance.

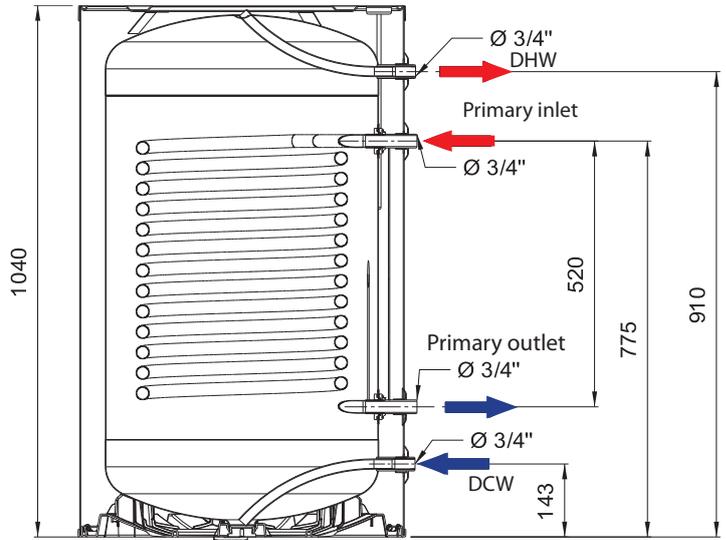
The installations can ONLY be placed on the floor.

4.2 - Dimensions

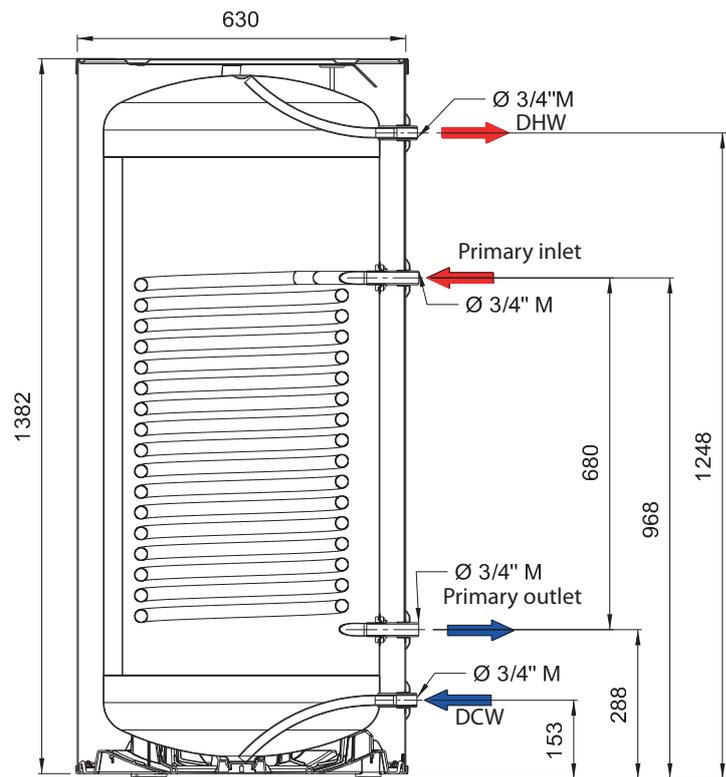
4.2.1 - PEJ 200 and PEJ 270 -view from above-



4.2.2 - PEJ 200



4.2.3 - PEJ 270



4.3 - Connection to water network



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It is mandatory to install a new pressure relief valve (not included) set at 7 bars on the cold water inlet of the appliance. This pressure relief valve with NF branding, must be in compliance with the national standards in effect

To prevent water leaking onto the tank, the pressure relief valve should never be installed above the tank.

Note:

- In certain countries water kits are subject to approval.
- The following figures are diagrams to show the standard principles of the connections to the appliance.
- To prevent any risk of corrosion, connect the stainless steel tank directly onto the ground.

- The pressure-relief valve should be installed as close as possible to the appliance's cold water inlet and the water flow **should never be hampered by any accessory** (valve, pressure-reducer, etc.).
- The pressure-relief valve drainage outlet should be sized according to building regulations and standards and must never be obstructed. It should be connected to a vertically draining pipe, using a funnel which allows an open space of at least 20mm and which is at least equal in diameter to the appliance's piping connection.
- If the pressure of the domestic cold water supply is higher than 5 bars, a pressure-reducer should be installed upstream from the pressure-relief valve near the outlet of the installation (a pressure of 3-4 bars is recommended).
- It is advised to fit a shut-off valve upstream from the pressure-relief valve.
- For installations equipped with:
 - small diameter piping
 - ceramic plate valvesA domestic expansion vessel, or anti-hammer valves which are adapted to the installation should be installed as close as possible to the shut-off valve.
- **The following materials should be used for the domestic hot water circuit:**
 - copper
 - stainless steel
 - brass
 - plastic materials

Depending on the materials used in the hot water circuit, incompatibilities can lead to damages due to corrosion.

Consequently, the appliance should always be connected to copper domestic hot water pipes with a **cast-iron or steel link, or with dielectric connections** (not included) to avoid an iron/copper galvanic bridge.

- Flush the supply line piping before connecting the appliance to the domestic installation so as not to introduce any particles, metallic or otherwise, into the appliance.
- Respect all standards in effect in the country of use, notably sanitation regulations and pressure safety regulations.
- The maximum domestic hot water temperature at distribution points should never exceed 50°C for the toilets, and 60°C for other uses. Adequate thermostatic mixing valves should be installed to avoid any risk of burns.
- In regions where water contains very high levels of limescale (TH>20°F), it is recommended to treat the water with a softener. Softened water should conform to the criteria defined by the country of use's regulations.
- In all cases, whether the water is softened or not, it must be in compliance with the criteria defined by standard DTU 60-1 addendum n°4 concerning hot water (or similar standards in the country of installation and use):
 - chloride levels (Cl⁻) < 70 mg/L
 - resistivity (comprised between 2200 and 4500 ohm/cm)
 - 12°F < TH < 30°F
 - ...



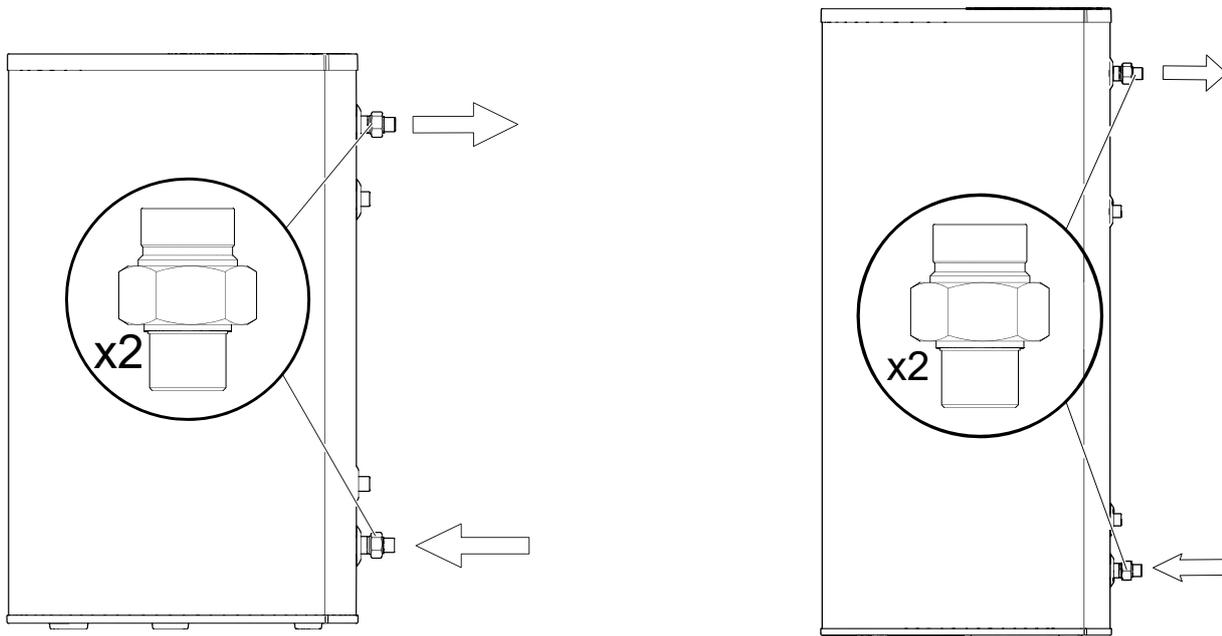
If any of these points have been neglected, if the water quality did not allow correct treatment within the legal framework then the warranty will be null and void.



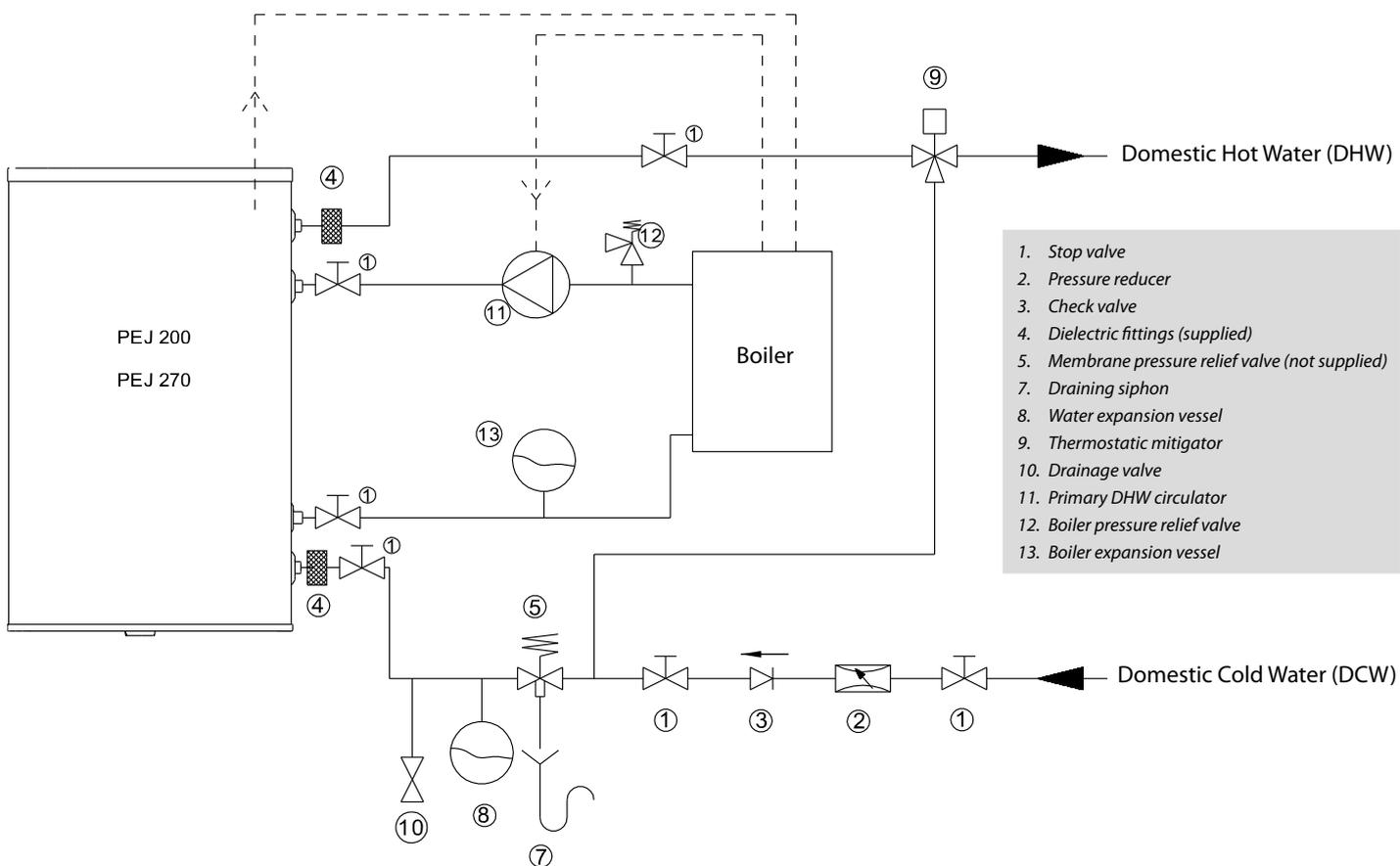
It is strongly advised to NOT use a recirculation pump. This appliance is not intended for connection to a recirculating pump. Any recirculation will cause a significant drop in the temperature of the water contained in the tank.

4.3.1 - Sanitary connection

Depending on the materials used to connect the appliance to the DHW cylinder, incompatibilities may lead to corrosion damage. Consequently, if the pipes are made of metal, the appliance **MUST** be connected to the Domestic Hot Water (DHW) and Domestic Cold Water (DCW) pipes using dielectric fittings (supplied with the appliance) to prevent galvanic corrosion.

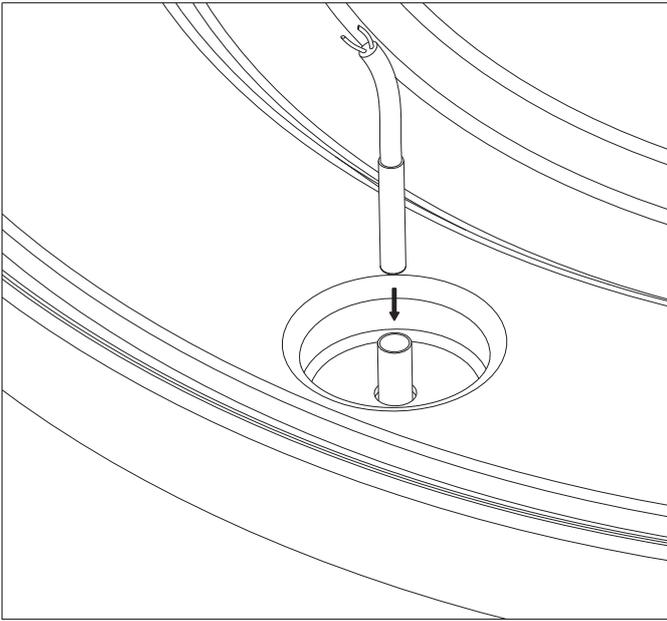


4.3.2 - PEJ 200 and 270



4.4 - Placement of the water sensor

Water sensor not supplied.



5 - SET-UP

See the § «Connection to water network» schematic diagram.

5.1 - Filling the water tank



It is MANDATORY to read the additional document concerning the quality of water used for filling the installation. This document is included with this manual as well as in the packet with the warranty information.

This document also contains information which is PERTINENT to the WARRANTY of the material.

Note: Before switching on the hot water heater, inspect the installation for watertightness to prevent risks of leaks during operation of the installation.

The inspection of the DHW reservoir must be done only using drinking water. The water pressure of this inspection must not be more than 7 bars.

- To purge the domestic water network, it is sufficient to open the hot water valve located at the highest point of the installation.
- Fill the water reservoir of the hot water heater by opening the stop valves. (1)
- Close the hot water valve after the water flow rate has stabilised and that all of the air has been purged.
- Inspect the pipes in the entire installation for watertightness.

5.2 - Filling the primary exchanger

- Open the insulating valves of the heating circuit connected to the boiler.
- Follow the instructions provided with the boiler for filling.
- If an anti-freeze is necessary in the primary circuit, it must be compatible with the Public Hygiene regulations, and it must not be toxic. Food-grade propylene glycol is recommended. Consult the manufacturer to determine the compatibility of the anti-freeze and the materials used in the manufacturing of the tank.

5.3 - Verifications before switching on

- Check that the pressure relief valves (domestic water) and (heating) are properly installed and the drains are connected to the sewer.
- Check that the domestic water reservoir and the primary circuit are filled with water.
- Check that the air is properly purged from both circuits.
- Check that the piping for domestic water and heating are properly connected and do not have any leaks.



There is a risk of bacterial development including «Legionella pneumophila» if a minimum temperature of 60°C is not maintained in the storage tank as well as in the domestic hot water distribution network.

Note:

- In the case of repetitive hot water draws in small quantities, a «stratification» effect may develop in the tank. The upper layer of hot water in the tank may attain extremely high temperatures. A thermostatic mixing valve prevents excessively hot water from coming out of the taps.
- Water heated for washing clothes, dishes, and other uses can cause severe burns.
- Never leave children, elderly, infirm, physically or visually impaired persons without supervision in the bath or shower to prevent any exposure to water which is excessively hot and which could lead to severe burns.
- Never leave young children alone to draw hot water, or to fill their own baths.
- Set the temperature of the water in compliance with usage and plumbing codes.

6 - MAINTENANCE

6.1 - Periodic inspections by the user

- Check the pressure of the boiler's manometer: it must be between 0.5 and 1.5 bar.
- Carry out a visual inspection every month of the valves, connections, and accessories to check for leaks or malfunctioning.
- Inspect the domestic water pressure relief valve for proper operation.
- In case of any anomalies, contact a technician or your installer.

6.2 - Annual maintenance

The annual maintenance of the installation to be carried out by a qualified technician must include:

- Checking the pressure of the boiler's manometer.
- Manual activation of the domestic water pressure relief valve once per year. This will cause hot water to discharge from the valve.



Before draining the hot water from the pressure relief valve, ensure that it is draining directly to the sewer so as to prevent any risk of burns or resulting spills.

- The discharge pipe must be open to the open air.
- If the pressure relief valves «drips» periodically, it could be due to a problem of expansion or blocking of the valve.
- Follow the maintenance instructions for the circulator.
- Check that the valves are operating properly.

6.3 - Drainage

6.3.1 - Recommendations



- **Drain the tank if operation must be interrupted during the winter and it is at risk of being exposed to frost or freezing.**
- **If the water in the primary circuit contains anti-freeze, only the water tank needs to be drained.**
- **If the heating circuit does not contain anti-freeze, both heating water and domestic water must be drained.**

6.3.2 - Drainage of the water tank

See the § «Connection to the water network» schematic diagrams.

To drain the water tank of the hot water heater:

- Close the stop valve (1) on the domestic cold water (DCW) inlet.
- Connect the drainage valve (10) to the sewer with the help of a flexible hose.
- Open the drainage valve (10) and drain the water from the tank into the sewer.
- Open a water valve to accelerate the draining of the tank.
- Close the drainage valve (10) and the water valve after draining the primary reservoir of the tank.
- Re-open the stop valve (1) on the domestic cold water (DCW) inlet.

7 - WARRANTY

The tank is guaranteed against breakage for a period of **three (3) years**, starting from the date the appliance was activated, if the warranty voucher was sent back to the manufacturer. In the absence of this document, the date of manufacture will be used to determine the start date of the warranty. If the tank is broken, the whole appliance will be replaced.

The other parts of the appliance are guaranteed for a period of **two (2) years** starting from the date the appliance was activated, if the warranty voucher was sent back to the manufacturer. In the absence of this document, the date of manufacture will be used to determine the start date of the warranty.

The appliance is guaranteed against all manufacturing defects, provided that it was installed by a qualified professional using our instruction manuals, the C15-100 standard for electrical connections as well as the hydraulic DTU 60-1 addendum 4 regarding domestic hot water.

A defective part does not warrant the whole appliance being replaced.

The warranty only applies to parts which we identify as being defective due to manufacturer defect.

If necessary, the part or product should be returned to the manufacturer but only with prior agreement from our technical department. Labour, transport, and handling costs are the responsibility of the user. Repairs on a device will not result in compensation.

The warranty on any replacement parts ends at the same time as the warranty of the appliance.

The warranty only applies to the appliance and its components, and excludes any part or installation external to the appliance.

Regular maintenance of the appliance by a qualified professional is essential for ensuring sustained use and durability. In the absence of regular maintenance, the warranty will not apply.

If an appliance is presumed to have been the cause of any damage, the appliance and the damage must be left as they are and not tampered with until an inspection can be carried out.

7.1 - Limitations of warranty

7.1.1 - General information

The warranty does not apply to defects or damage caused by situations or events such as:

- Misuse (other than domestic), abuse, negligence, improper transport, improper handling, or improper storage.
- Incorrect installation, or installation which has been carried out without following the instructions in the manual and user guide.
- Insufficient maintenance.
- Modifications or changes carried out on the appliance.
- Impacts from foreign objects, fire, earthquakes, floods, lightning, ice, hailstones, hurricanes, or any other natural disaster.
- Movement, imbalance, collapse or settling of the ground or the structure where the appliance is installed.
- Any other damage which is not due to defects in the product.

The water heater is not guaranteed against:

- Variations in the colour of the appliance or damage caused by air pollution, exposure to chemical elements, or changes brought about by adverse weather conditions.
- Dirt, rust, grease, or stains which occur on the surface of the appliance.

7.1.2 - Cases for exclusion from warranty (not limited to)

7.1.2.1 - Use

Cases (not limited to) where the warranty is void:

- The water supply being other than cold domestic water, (such as rainwater or well water), or which has particularly hostile or abnormal properties which do not comply with the national regulations and standards in effect.

7.1.2.2 - Handling

Cases (not limited to) where the warranty is void:

- Any damage sustained by impacts or falls during handling after delivery from the factory.
- Deterioration in the condition of the appliance after handling where the instructions in the manual have not been followed.

7.1.2.3 - Placement

Cases (not limited to) where the warranty is void:

- Placing the appliance where it can be subject to frost or other adverse weather conditions.
 - Non-compliance with the instructions in the manual when installing or placing the appliance.
- Costs incurred by access difficulties are not the manufacturer's responsibility.
- Installing the appliance on a surface which cannot bear its weight when filled with water.

7.1.2.4 - Hydraulic connections

Cases (not limited to) where the warranty is void:

- Reversing the hot / cold water connections.
- Water pressure higher than 6 bars.
- Absence of, incorrect fitting of, or obstruction of, a pressure-relief valve.
- Not installing the pressure-relief valve directly onto the cold water inlet of the appliance.
- Fitting a pressure-relief valve which does not comply with the current national standards (NFD-36-401).
- Installing a previously-used pressure-relief valve.
- Tampering with the pressure relief valve.
- Abnormal levels of corrosion caused by an incorrect hydraulic connection (direct contact between iron and copper) without a sleeve (cast-iron, steel, or insulating).
- External corrosion caused by the piping not being properly sealed or by condensates not draining off properly.

No claim for compensation may be made for damage which has occurred as a result of not installing thermostatic mixing valves onto the appliance.

7.1.2.5 - Accessories

The warranty does not cover defects resulting from:

- Installation of accessories which do not comply with manufacturer recommendations.
- Use of accessories not provided by the manufacturer.

7.1.2.6 - Maintenance

Cases (not limited to) where the warranty is void:

- Not maintaining the appliance.
- Not maintaining the pressure-relief valve, resulting in excessive pressure.
- Absence of a pressure-reducer.
- Abnormal levels of limescale on the pressure relief valves.
- Not using the parts supplied by the manufacturer.
- The protective outer casing being subjected to any external damage.



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